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A TIME EXPANSION CHAMBER AS VERTEX DETECTOR
FOR EXPERIMENT MARK J AT DESY

L3 COLLABORATION - VERTEX CHAMBER GROUP
RWTH AACHEN - AdW BERLIN (ZEUTHEN) - CERN - GENEVA UNIVERSITY -
MARK J GROUP (DESY) - GHS SIEGEN - ETH ZUERICH
PRESENTED BY G. VIERTEL

THE DESY MARK J DETECTOR IS BEING UPGRADED BY THE ADDITION OF A SMALL DRIFT
CHAMBER AROUND THE BEAM PIPE. THE DESIGN OF THE DETECTOR AND ITS PERFORMANCE
DURING TEST BEAM OPERATION ARE PRESENTED.

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Performance of the SLD Central Drift Chamber Prototype

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C.L.Hodges, U.Nauenberg, B.S.Nielsen, R.Panvini, C.Y.Prescott,
T.W.Reeves, L.S.Rochester, K.Simpson, A.Steiner and C.C.Young

A two-cell prototype of the SLD Central Drift Chamber has
been tested using CO₂-isobutane (92%-8%) at one atmosphere.
Average single wire resolution of 55 μ m was achieved. Charge
division tests indicate a resolution for the final design of
~0.5% of wire length. 100 MHz waveform digitizers were used
in parallel with conventional timing and integration techniques.
The results show equivalent performance and a two pulse
resolution better than 1 mm.